

## Data Link/Physical Layer Packet Diversion and Insertion

### ABSTRACT OF THE DISCLOSURE

5

A buffering structure including a number of storage structures and associated diversion and/or insertion logic, is provided to facilitate one or more selected ones of post-switching, pre-medium placement, diversion and/or insertion of egress packets, and post-medium extraction, pre-switching, diversion and/or insertion of ingress packets, during data link/physical layer processing of networking traffic. In selected applications, the buffering structure is provided as an integral part of a single ASIC multi-protocol networking processor having data link/physical layer processing components for a number of datacom and telecom protocols. In one of the selected applications, the single ASIC multi-protocol networking processor is employed in conjunction with other optical and electro components to form an integral optical networking module in support of optical-electro networking for the datacom/telecom protocols.

10

15